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| 09/782,064 | 02/14/2001 | Tetsuro Motoyama | 194539US-2 | 1821 |

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| EXAMINER |
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TRAN, QUOC A

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| ART UNIT | PAPER NUMBER |
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2176

DATE MAILED: 07/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/782,064

Applicant(s)

MOTOYAMA ET AL.

Examiner

Quoc A. Tran

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 April 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date Entry No. 46, 50.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to Amendment filed 04/06/2006 with recognition of an original filing date of 02/14/2001.
2. Claims 1-25 are pending. Claims 1, 9 and 17 are independent claims.

Response to Argument

3. Applicant's arguments, in the Remarks filed 04/06/2006 with respect to claim 1-24 have been considered but are moot in view of the new ground(s) of rejection. This office action is a Non-Final Rejection in order to give the applicant sufficient opportunity to response to the new line of rejection.

The examiner respectfully notes that Aikens teaches a printer device with operation monitoring (collection) capabilities (Aikens Abstract), whereby said printer comprises control boards (target applications) providing control for predetermined systems of said printer (Aikens Figure 2 items 102, 104, 106). Since Aikens teaches that any one of the control boards can be the master control for the other boards, Aiken Figure 2 item 108 (with modem item 120), can be designated as the master controller, and therefore reasonably interpreted as a "*first predetermined destination*". In order for item 36 and 52 of Aikens (Aikens internal user interface - see Aikens Figure 2) to monitor accordingly, communication (i.e. a "first request" for "first" information) commences between said interface, the master control, and the various control board applications (one or more boards) utilizing communication channel 98, said information comprising monitoring (i.e. usage) information,

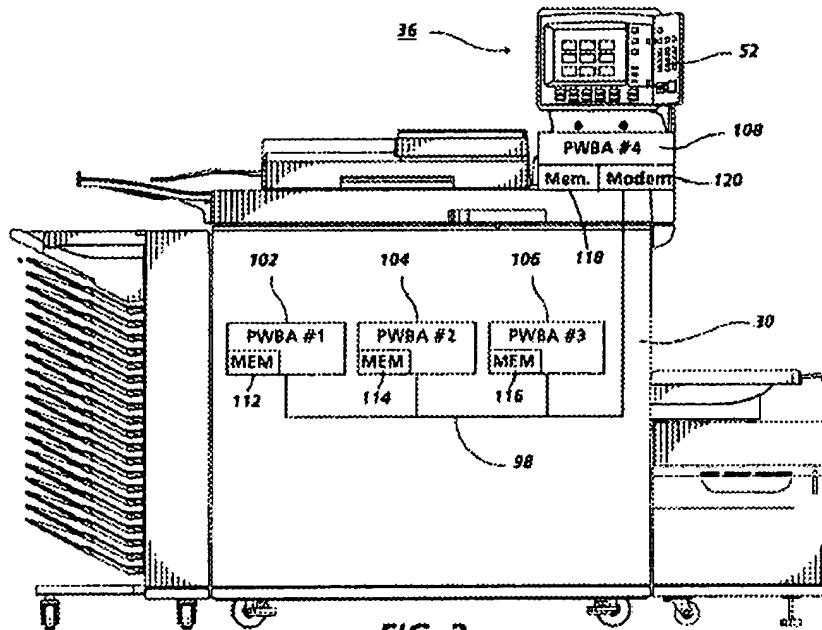


FIG. 2

and furthermore the Examiner introduces Venkatraman and web references to cure the deficiencies of Aiken compares to claims 1-24 if the claimed invention (see the rejection below for detail). Also the examiner respectfully notes that D'Souza fairly teaches the unamended claims 5-8, 13-16 and 21-24 (i.e. the Object Oriented Programming).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1- 4, 9-12 and 17-20 and 25** are rejected under 35 U.S.C. 103(a) as being unpatentable by Aikens et al. US005414494A – issued 05/09/1995 (hereinafter Aikens), in view of Venkatraman et al. US005956487A – issued 09/21/1999 (hereinafter Venkatraman), further in view of Webb et al US005727135A – issued 00/10/1998 (hereinafter Webb).

In regard to independent claim 1, receiving from a first one of the plurality of target applications through an interface by a monitoring device in the appliance or device, a request to send first information monitored usage of the first one of the plurality of target applications to a first predetermined destination, Aiken teaches, a printer device with operation monitoring (collection) capabilities (Aikens Abstract), whereby said printer comprises control boards (target applications) providing control for predetermined systems of said printer (Aikens Figure 2 items 102, 104, 106). Since Aikens teaches that any one of the control boards can be the master control for the other boards, Aiken Figure 2 item 108 (with modem item 120), can be designated as the master controller, and therefore reasonably interpreted as a *"first predetermined destination"*. In order for item 36 and 52 of Aikens (Aikens internal user interface - see Aikens Figure 2) to monitor accordingly, communication (i.e. a "first request" for "first information) commences between said interface, the master control, and the various control board applications (one or more boards) utilizing communication channel 98, said information comprising monitoring (i.e. usage) information;

Aikens does not explicitly teach, **first communication protocol using a first data format**, however, Venkatraman teaches embedding Web access in an appliance (i.e. a printer) for user interface function (Venkatraman Abstract). With reference to Venkatraman Figure 1a,

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Venkatraman teaches monitoring of a printer device via printer device (item 10), an embedded monitor for monitoring accordingly (item 16), an embedded Web, server (item 14), and an embedded Web page dynamically created to provide monitored information and user interface functions (see also Venkatraman column 3 lines 5-42).

It is noted that all of the above items reside within printer device item 10. Venkatraman also teaches HTTP as a protocol, and HTML as a language (format) (Venkatraman column 2 lines 42-48).

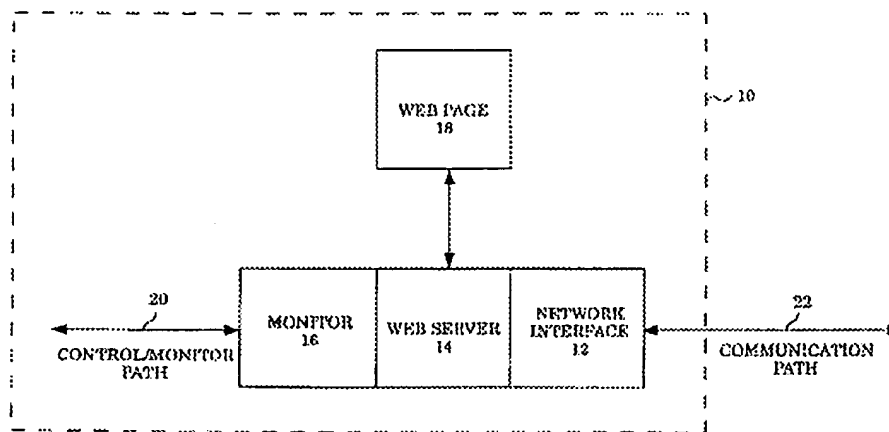


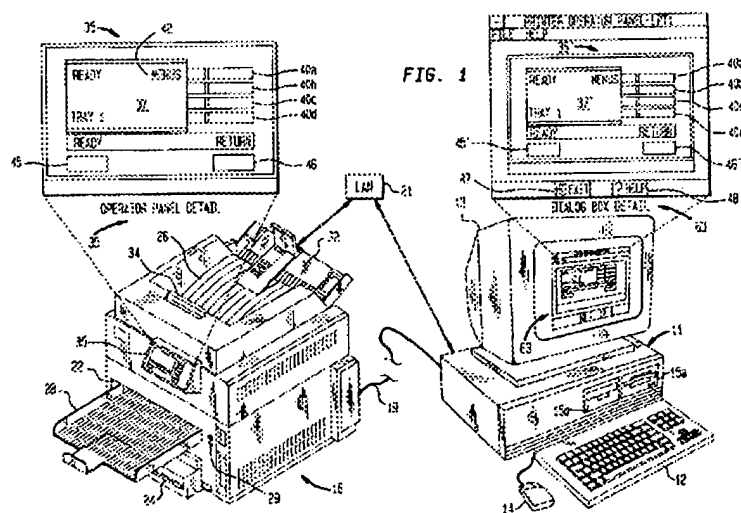
Figure 1a

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Venkatraman's HTTP and HTML protocol and format to Aiken's internal communication, providing the user interface of Aikens the benefit of Web page presentation (i.e. URLs, etc.) for a visually enhanced user interface, and for providing monitoring utilizing Aikens's modem interface connected to the Internet.

Aikens does not explicitly teach, **receiving from a second one of the plurality of target applications through the interface, by the monitoring device, a request to send second**

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information regarding monitored usage of the second one of the plurality of target applications to a second predetermined destination through a second communication protocol using a second data format, wherein the first communication protocol is different from the second communication protocol. However, Webb teaches remote printer status information indication for monitoring printer status (Webb Abstract). With reference to Figure 1, Webb teaches a computer (reasonably interpreted as a second destination) connected to a printer device via cable (item 19). Although Webb teaches said item as a parallel interface, Web also teaches this interface can be serial based as well (see Webb column 11 lines 1-5, column 10 lines 1-3). Webb teaches bi-directional communication of monitoring information via the Network Printer Alliance Protocol (NPAP) which is a protocol specific to printer communication. Webb also teaches that NPAP is a "format" (see Webb column 7 lines 40-53, and column 8 lines 20-25). It is also noted that the NPAP protocol/format is different from the HTTP/HTML protocol/format. 3



It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Webb to Aikins (using Aikens's serial port - see Aikens column 6 line 7), providing Aikens the benefit of bi-directional control to Aikens's status (usage) monitoring, facilitating accurate visual monitoring.

In regard to independent claims 9 and 17, incorporate substantially similar subject matter as cited in claim 1 above, and are similarly rejected along the same rationale.

In regard to dependent claim 2, wherein the first data format includes one of text format, binary format, comma separated format and XML format and the first communication protocol includes one of, Simple Mail Transfer Protocol (SMTP), File Transfer Protocol and local disk, however, Venkatraman teaches HTTP as a protocol, and HTML as a language (format) (Venkatraman column 2 lines 42-48). See also Aiken Fig. 2 item 118 "mem"- reasonably interpreted as a disk, since a disk is a well known form of memory, in this case the "mem" Fig. 2 item 118 resides within the unit (i.e. local). See also (Venkatraman at col. 3, lines 60-65) teaches the communication path item 22 represents any communication means that is capable of transferring HTML (format) files according to the HTTP web protocol (i.e. FTP) (see Venkatraman at col. 3, lines 60-65).

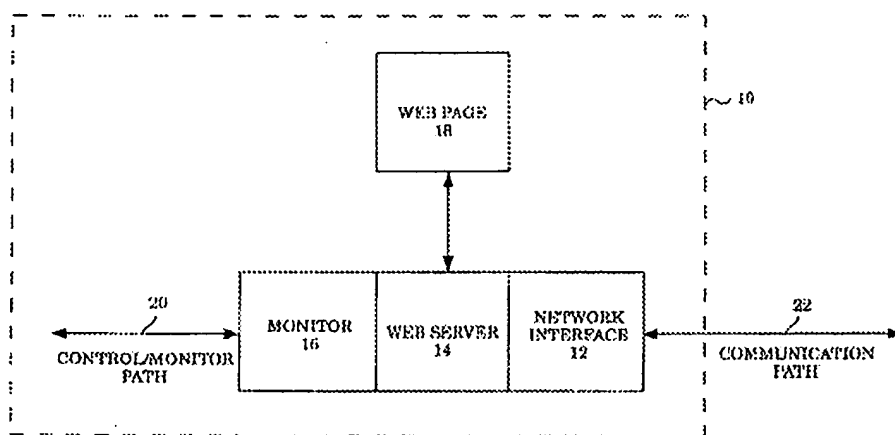


Figure 1a

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Venkatraman's HTTP and HTML protocol and format to Aiken's internal communication, providing the user interface of Aikens the benefit of Web page presentation (i.e. URLs, etc.) for a visually enhanced user interface, and for providing monitoring utilizing Aikens's modem interface connected to the Internet.

In regard to dependent claim 3, incorporate substantially similar subject matter as cited in claim 1 above, and is similarly rejected along the same rationale.

In regard to dependent claim 4, incorporate substantially similar subject matter as cited in claim 1 above, and further view of the following, and is similarly rejected along the same rationale,

sending the first format data to the first predetermined destination first communication protocol, Aiken teaches, a printer device with operation monitoring (collection) capabilities (Aikens Abstract), whereby said printer comprises control boards (target

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applications) providing control for predetermined systems of said printer (Aikens Figure 2 items 102, 104, 106). Since Aikens teaches that any one of the control boards can be the master control for the other boards, Aiken Figure 2 item 108 (with modem item 120), can be designated as the master controller, and therefore reasonably interpreted as a **"first predetermined destination"**. In order for item 36 and 52 of Aikens (Aikens internal user interface - see Aikens Figure 2) to monitor accordingly, communication (i.e. a "first request" for "first" information), and therefore reasonably interpreted as a **" first communication protocol "** commences between said interface, the master control, and the various control board applications (one or more boards) utilizing communication channel 98, said information comprising monitoring (i.e. usage) information;

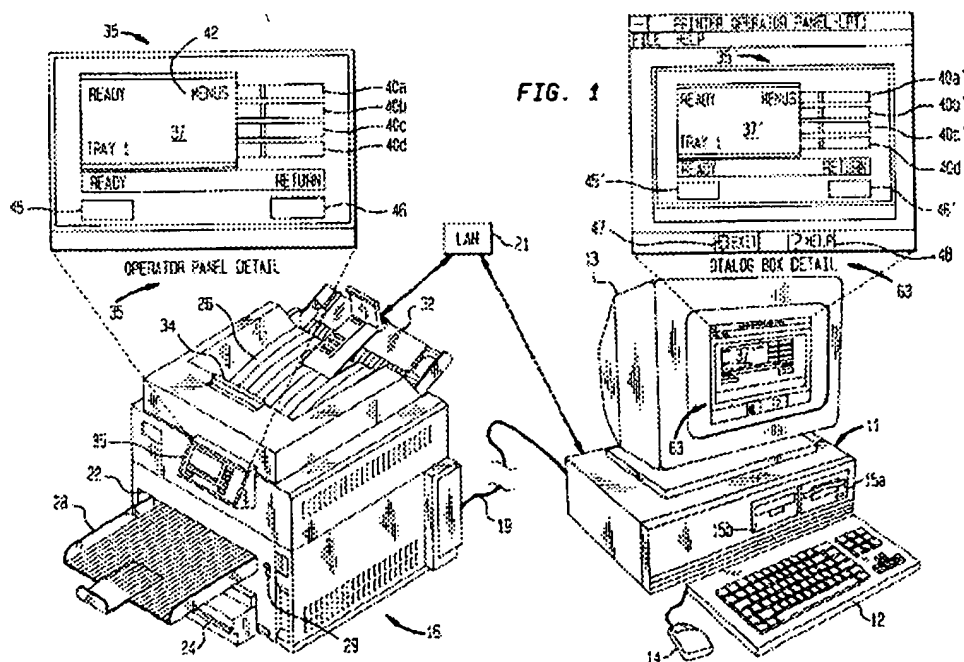
Aikens does not explicitly teach, **formatting the first information into the first format data according to the first data format, formatting the second information into second formatted data according to the second data format**. However, Venkatraman teaches formatting into HTML (see Venkatraman at col. 4, lines 50-55), and Webb teaches translation into NPAP compliant format (see Webb at col. 7, lines 40-50 and at col. 8, lines 20-25).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Venkatraman's HTTP and HTML protocol, formatting and Webb's teaching of translation into NPAP compliant format to Aiken's internal communication, providing the user interface of Aikens the benefit of Web page presentation (i.e. URLs, etc.) for a visually enhanced user interface, and for providing monitoring utilizing Aikens's modem interface connected to the Internet.

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Aikens and Venkatraman do not explicitly teach, **sending the second predetermined destination through a second communication protocol using a second data format, wherein the first communication protocol is different from the second communication protocol.**

However, Webb teaches remote printer status information indication for monitoring printer status (Webb Abstract). With reference to Figure 1, Webb teaches a computer (reasonably interpreted as a second destination) connected to a printer device via cable (item 19). Although Webb teaches said item as a parallel interface, Web also teaches this interface can be serial based as well (see Webb column 1 I lines 1-5, column 10 lines 1-3). Webb teaches bi-directional communication of monitoring information via the Network Printer Alliance Protocol (NPAP) which is a protocol specific to printer communication. Webb also teaches that NPAP is a "format" (see Webb column 7 lines 40-53, and column 8 lines 20-25). It is also noted that the NPAP protocol/format is different from the HTTP/HTML protocol/format.



It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Webb to Aikins (using Aikens's serial port - see Aikens column 6 line 7) and using Venkatraman's teaching of the HTTP web protocol that capable of transferring HTML format (see Venkatraman at col. 3, lines 60-65), providing Aikens the benefit of bi-directional control to Aikens's status (usage) monitoring, facilitating accurate visual monitoring.

In regard to dependent claims 10 and 18, incorporate substantially similar subject matter as cited in claim 2 above, and are similarly rejected along the same rationale.

In regard to dependent claim 11, incorporate substantially similar subject matter as cited in claim 1 above, and is similarly rejected along the same rationale.

In regard to dependent claims 12 and 20, incorporate substantially similar subject matter as cited in claim 4 above, and are similarly rejected along the same rationale.

In regard to dependent claim 19, incorporate substantially similar subject matter as cited in claim 3 above, and is similarly rejected along the same rationale.

In regard to dependent claim 25, incorporate substantially similar subject matter as cited in claim 5 above, and further view of the following, and is similarly rejected along the same rationale,

wherein the first predetermine destination is a component internal to the appliance or device, see Aiken Fig. 2, item 108 "mem", which is "internal" to the printer.
"PWA"

6. **Claims 5-8, 13-16 and 21-24** are rejected under 35 U.S.C. 103(a) as being unpatentable by Aikens et al. US005414494A – issued 05/09/1995 (hereinafter Aikens), in view of Venkatraman et al. US005956487A – issued 09/21/1999 (hereinafter Venkatraman), further in

view of Webb et al US005727135A – issued 00/10/1998 (hereinafter Webb), further in view of D’Souza et al. US006745224B1– filed 12/06/1996 (hereinafter D’Souza).

In regard to dependent claim 5, Aikens, Venkatraman and Webb do not explicitly teach, **wherein the step of formatting the first information includes creating a first software class having a declared virtual function, creating a second software class derived from the first software class having a first definition of the declared virtual function,** however (D’Souza at col. 15, line 10 through col. 30, line 55, also see Fig. 1-8, discloses an object-oriented software framework that provides services to support periodically recurring operations, including change monitoring and updating of locally stored copies of remote documents so as to be available for off line use, wherein An object is an instance of a programmer-defined type referred to as a class, which exhibits the characteristics of data encapsulation, polymorphism (e.g. Polymorphism refers to the ability to view (i.e., interact with) two similar objects through a common interface) and inheritance (e.g. Inheritance refers to the derivation of different classes of objects from a base class, where the derived classes inherit the properties and characteristics of the base class (which for purposes of OLE are the interfaces of the base class)). As illustrating in Fig. 8 the interfaces of an object are illustrated graphically as a plug-in jack as shown for the document object in FIG. 8. Objects can include multiple interfaces, which are implemented with one or more virtual function tables. The member function of an interface is denoted as "InterfaceName::FunctionName.",

and creating a first formatted information software object, however (D’Souza at col. 9, lines 15-65, also see Fig. 2 and 9), discloses an object-oriented framework including a set of

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software modules that is described below with reference to FIG. 9. Web Check 53 includes a core set of software modules with interfaces for a client application program to set up, schedule and monitor periodically recurring operations implemented by an agent program. The agent programs in the illustrated system implement updating operations for use by the operating system and application software (such as the browser 51) to automatically monitor a specified document (e.g., HTML document 60) residing at a remote site on a computer network for changes and maintain an up-to-date locally stored copy of the document for later off-line use).

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply D'Souza's Object Oriented Programming (OOP) compiles language C++, providing the class inherent and virtual function that benefit Venkatraman's HTTP and HTML protocol and format to Aiken's internal communication, providing the user interface of Aikens the benefit of Web page presentation (i.e. URLs, etc.) for a visually enhanced user interface, and for providing monitoring utilizing Aikens's modem interface connected to the Internet.

In regard to dependent claim 6, formatting first formatted information according to one of comma separated format and XML format. However, Webb teaches bi-directional communication of monitoring information via the Network Printer Alliance Protocol (NPAP) which is a protocol specific to printer communication. Webb also teaches that NPAP is a "format" (see Webb column 7 lines 40-53, and column 8 lines 20-25). It is also noted that the NPAP protocol/format is different from the HTTP/HTML protocol/format. Further more Webb also teaches that NPAP protocol/format is formatting using; bytes ordering (comma separated format) see Webb at col. 1260 through col. 13, line 25.

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It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Venkatraman's HTTP and HTML protocol and format using bytes ordering (comma separated format) to D'Souza's Object Oriented Programming (OOP) compiles language C++, providing the class inherent and Aiken's internal communication, providing the user interface of Aikens the benefit of Web page presentation (i.e. URLs, etc.) for a visually enhanced user interface, and for providing monitoring utilizing Aikens's modem interface connected to the Internet.

In regard to dependent claim 7, incorporate substantially similar subject matter as cited in claim 5 above, and further view of the following, and is similarly rejected along the same rationale,

the third software class, derives from the first software class, having a second definition of the declare virtual function, however (D'Souza at col. 15, line 10 through col. 30, line 55, also see Fig. 1-8, discloses an object-oriented software framework that provides services to support periodically recurring operations, including change monitoring and updating of locally stored copies of remote documents so as to be available for off line use, wherein An object is an instance of a programmer-defined type referred to as a class, which exhibits the characteristics of data encapsulation, polymorphism (e.g. Polymorphism refers to the ability to view (i.e., interact with) two similar objects through a common interface) and inheritance (e.g. Inheritance refers to the derivation of different classes of objects from a base class, where the derived classes inherit the properties and characteristics of the base class (which for purposes of OLE are the interfaces of the base class)). As illustrating in Fig. 8 the interfaces of an object are illustrated graphically as a plug-in jack as shown for the document object in FIG. 8. Objects can include multiple interfaces, which are implemented with one or more virtual function tables. The member function of an interface is denoted as "InterfaceName::FunctionName.",

It would have been obvious to one of ordinary skill in the art at the time of the invention to apply D'Souza's Object Oriented Programming (OOP) compiles language C++, providing the class inherent and virtual function that benefit Venkatraman's HTTP and HTML_ protocol and format to Aiken's internal

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communication, providing the user interface of Aikens the benefit of Web page presentation (i.e. URLs, etc.) for a visually enhanced user interface, and for providing monitoring utilizing Aikens's modem interface connected to the Internet.

In regard to dependent claim 8, incorporate substantially similar subject matter as cited in claims 1 and 5 above, and is similarly rejected along the same rationale.

In regard to dependent claims 13-16 consecutively, incorporate substantially similar subject matter as cited in claims 5-8 consecutively above, and are similarly rejected along the same rationale.

In regard to dependent claims 21-24 consecutively, incorporate substantially similar subject matter as cited in claims 5-8 consecutively above, and are similarly rejected along the same rationale.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Quoc A. Tran whose telephone number is (571) 272-4103. The examiner can normally be reached on Monday through Friday from 9 AM to 5 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Herndon R. Heather can be reached on (571) -272-4136. The fax phone number for the organization where this application or proceeding is assigned is (571)-273-8300

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Quoc A, Tran
Patent Examiner
Technology Center 2176
July 5, 2006

William L. Bashore
WILLIAM BASHORE
PRIMARY EXAMINER